

On a New Species of *Elasipoda* from Misaki.

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Ilyodæmon Ijimai, sp. n.

This is by far the commonest of the holothurians found in the deeper parts of the seas about the Misaki Marine Station, exceeding greatly in number *Lætmogone violacea*, Théel which is next to it in abundance.

The definition of the genus *Ilyodæmon* given by THÉEL* is as follows :—

Tentacles fifteen, rather large and non-retractile. The lateral ambulacra of the ventral surface with large pedicels, apparently disposed in a double row all along each side of that surface. The odd ambulacrum naked. The dorsal surface with a crowded series of very numerous, retractile, slender, rather long processes, disposed in three or four irregular, close-set rows all along each of its ambulacra. Integument with numerous wheels and dichotomously branched bodies.

The present species falls in well with this definition, excepting a single point. *Its calcareous deposits wholly lack dichotomously branched bodies.* The specimens in my possession are quite numerous, and not only do I fail to discover any dichotomously branched bodies in all the preparations which show other kinds of calcareous deposits beautifully, but there is not in any specimen any trace of larger and smaller white spots visible to the naked eye, which are stated by THÉEL to be present in *I. maculatus*, and to be caused by those bodies. In view of this fact, it

* Report on the Scientific Results of the Exploring Voyage of H. M. S. Challenger 1873-76, vol. IV, p. 84.

would be necessary to modify the last part of the generic definition as follows: "Integument with numerous wheels, sometimes also with dichotomously branched bodies."

The same point also separates off the present species at once from *I. maculatus*, Théel, the only species, so far as I can discover, known hitherto of the genus.

The main features of the species are as follows:—

Body elongated, of almost equal breadth throughout, being in largest alcoholic specimens 120–160 mm. long and 35–40 mm. wide, about 3–4 times as long as broad. Mouth anterior, subventral. Anus posterior, subdorsal. Tentacles fifteen, with large circular discoidal ends; on the whole, the ventral tentacles smaller than the dorsal. The odd ventral ambulacrum naked. Pedicels of each lateral ambulacrum 22–25, the alternate arrangement of pedicels in the inner and outer rows of each ambulacrum very obvious in some specimens, and hardly recognizable in others, the difference being probably due to the degree of contraction in alcoholic specimens. Processes of each of the dorsal ambulacra very numerous, conical, rather short, the longest about one-third of the width of the body, in about four rows, of which the inner two are sometimes distinctly separated by a space from the outer two. Back naked in the median dorsal interambulacrum, with the exception of the genital process in the anterior part. Integument soft, sometimes thin, sometimes thicker and spongy (the difference being probably due to the state of preservation), more or less translucent, most so in fresh state, internal organs (especially light-colored organs like the generative organs) being visible from the surface. Calcareous deposits of two kinds; large wheels with six central rods and small wheels mostly with four central rods. Among the former, the largest are about 0.21 mm. in diameter and have about nine spokes (See THÉEL, *loc. cit.* pl. XXXVI, fig. 15). These grade off into those about 0.1 mm. in diameter and with about twelve spokes. Various stages of growth in the large wheels are visible, as given by THÉEL. The small wheels (See THÉEL *loc. cit.* pl. XXXVI, fig. 17) are 0.046–0.059 mm. in diameter. In them

the felly is narrower and the spokes (usually 12) are shorter. Large wheels are most numerous on the dorsal surface, and in the lateral pedicels. Small wheels are predominant in the ventral perisoma and in the dorsal papillæ. Arcuate or spindle-shaped spicules are present on the pedicels and tentacles.

Color.—In alcohol, white grey without any white spots. In fresh state, beautiful light violet with deeper tints on the dorsal papillæ, etc. A rather broad straw yellow streak on each side of the dorsal surface along and outside the outer series of dorsal papillæ, becoming fainter toward the front.

Habitat.—In all parts of the Sagami Bay and of the outer part of the Tokyo Bay in waters deeper than 250 fathoms. Specimens in the Museum of this Institute.

The above description shows that this species closely resembles *I. maculatus*, the only distinct points of difference being the entire absence of dichotomously branched bodies, and the comparative shortness of the dorsal papillæ. Compared with the measurements given by THÉEL, the wheels, large and small, seem also to be slightly larger in the present species. It is a fact worth noting that the two species of *Ilyodæmon* occur at about the same longitudes (between 120°—150° E) but are separated by about 20 degrees of latitude. Anatomical notes as well as some interesting facts relative to the growth of the animal I reserve for some future occasion.

I take great pleasure in naming this present species after my friend and colleague, Prof. Dr. IJIMA, in pleasant remembrance of many uncomfortable but fruitful days spent together on fishing boats on the Sagami seas and in appreciation of his great services in unearthing the treasures of those deeper parts.

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